SPG 1400.1

September, 2000

John C. Stennis Space Center
Document Preparation, Numbering, and Management Guidelines and Standards

National Aeronautics and
Space Administration

John C. Stennis Space Center
Stennis Space Center, MS 39529-6000

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PREFACE

P1. PURPOSE

This John C. Stennis Space Center (SSC) Procedures and Guidelines (SPG) establishes the guidelines and standards for preparation and management of SSC documentation. The purpose of this document is to provide the overall guidance necessary to ensure the uniformity, consistency, and general quality of SSC instructional documentation and facilitate its ongoing maintainability, referenceability and retrieveability.

This instruction provides guidelines and standards for numbering, format, maintenance, and revision of Stennis Policy Directives (SPD's), Stennis Procedures and Guidelines (SPG's), and work processes, procedures and instructions consistent with:

a. Requirements of NPG 1400.1, National Aeronautics and Space Administration (NASA) Directives System Procedures and Guidelines,

b. Functionality of the SSC Technical Documentation System (TechDoc or TDS) document repository and management system, and

c. Documentation standardization and management practices recommended for quality management programs.

P2. APPLICABILITY

This instruction is applicable to all NASA and NASA contractor personnel who prepare, maintain, or manage SSC instructional or procedural documentation necessary to achieve the NASA/SSC mission, goals, functions and work objectives. The standards and guidelines provided herein are specifically applicable to the instructional and procedural documentation housed and maintained within the SSC TechDoc System documentation repository. This documentation includes: SPD's, SPG's, System Level Procedures (SLP's), and work instruction documents such as work processes and procedures, maintenance instructions, test procedures, technical procedures, technical standards, etc.

In the context of this document, instructional and procedural documentation is defined as that which is specific and/or essential to performance of NASA/SSC functions, services and operations and which will remain in place and effect until revised or cancelled regardless of the preparing or performing organization or contractor. Such documentation is considered the property of NASA/SSC and provides for the continuity of NASA/SSC business and operations.

The SSC document format and numbering methodology described herein shall be used on all new documents as they are prepared and on legacy documents as they are revised or converted from scanned images to electronic format. SSC personnel are responsible for consulting with the Stennis Document Numbering System (SDNS) administrators for assistance in document conversion and numbering transition activities.

The format standards do not apply to external documents (e.g., accepted industry standards or specifications used by SSC), nonpolicy, nonprocedural documents of a general reference or other informational nature, or contractor corporate/proprietary instructions that may be housed in the TechDoc System. These documents may utilize other appropriate formats. However, to the extent appropriate, any reference, practical, or informational documents (e.g., unique SSC plans, capability statements, reports, etc.) that may be housed and maintained (revised/updated) in the SSC document repository should be numbered according to the numbering guidelines established herein. External documents will use their associated numbering methodologies or other appropriate scheme as required.

Any contractor proprietary/corporate documents housed in the SSC TechDoc System will be at the contractor's discretion. The contractor is solely responsible for their format, content, proprietary numbering and maintenance and must ensure removal or cancellation of these documents at contract end. Use of the guidelines for general format and structure may be of value in the preparation of these documents, but use of the TechDoc System and maintenance of documents within the system must be in accordance with the established TechDoc System usage guidelines.

P3. AUTHORITY

a. 42 U.S.C 2473 (c)(1) of the National Aeronautics and Space Act of 1958, as amended.

b. 40 U.S.C 1401 et seq., The Clinger-Cohen Act (Section 808 of Pub. L. 104-208, renaming in pertinent part the Information Technology Management Reform Act of 1996, Division E of Pub. L. 104-106, The National Defense Authorization Act of 1996).

c. 44 U.S.C 3501 et seq., the Paperwork Reduction Act of 1995, (Pub. L. 104-13), as amended.

d. 41 CFR Chapter 101, Subchapter B, Part 101-11, *Creation, Maintenance, and Use of Records*.

P4. REFERENCES

All references are assumed to be the latest version unless otherwise specified.

a. NPD 2800.1, *Managing Information Technology*.
b. NPG 2800.1, *Managing Information Technology*.
c. NPG 1400.1, *NASA Directives System Procedures and Guidelines*.
d. NPG 1441.1, *NASA Records Retention Schedules*.
e. NPG 1450.1, *NASA Correspondence Management and Communications Standards and Style*.
f. SPG 1420.1, *John C. Stennis Space Center SSC Forms Management*.
g. SPG 8730.1, *John C. Stennis Space Center Customer Service Manual*.
h. SPG 8715.1, *Stennis Space Center Safety and Health Procedures and Guidelines*.
i. SLP-05, *Document and Data Control*.
j. SLP-16, SSC *Records Management Program and Control of Quality Records*.
k. SSC STD 99-008, *Guide for the Preparation, Approval and Release of SSC Standards*.
l. KSC-TD-980002, *NASA/KSC Technical Documentation System User's Guide* (To be revised for SSC).
m. SPG 1400.2 *Stennis Document Numbering System (SDNS) User Guidelines*.
n. SSC Form 738, *TechDoc System Documentation Release Checklist*.
o. *U.S. Government Printing Office Style Manual*.

P5. CANCELLATION

a. SSC Form 272, *Technical Procedure Page* [cover/title page].
b. SSC Form 273, *Technical Procedure Revision Page*.
c. SSC Form 274, *Technical Procedure (Cont. Sheet)*.
d. SSC Form 275, *Technical Procedure Change Notice*.

Original Signed By

Roy S. Estess
Director

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CHAPTER 1. INTRODUCTION

1.1 Background

Stennis Space Center utilizes an ever-growing number of instructional documents (directives, processes, procedures, work instructions, etc.) to guide the facility's operations and performance of its work objectives. Legacy documentation, developed and manually managed over the years, has utilized a variety of formats and numbering methodologies lending to inconsistent document quality, referenceability, retrieveability, and management. Essential knowledge of and access to the documents and information has been functionally and organizationally fragmented.

Automated electronic data processing and word processing technologies and database applications invalidate the traditional paper and manual methods of managing documentation. To this end, the TechDoc System is designated as the official repository for various information resources as well as the mechanism for document and data control providing uniform access to all of SSC. However, as with any database or documentation management methodology, the quality, validity, and usefulness of the information contained within and its accessibility to various SSC users is only as good as the rules, standards, and controls applied to the document's creation, identification, entry, and maintenance processes.

1.2 Objectives of Document Standardization

To manage efficiently the necessary information resources required to support SSC operations and performance initiatives, the SSC Chief Information Officer (CIO) established the following objectives for SSC documentation.

a. Standardize document numbering to:

(1) Provide a single uniform system for use by all organizations.
(2) Facilitate intuitive information or document recognition, identification, and retrieval.
(3) Provide a common sitewide methodology incorporating built-in intelligence to associate subject areas or functions to accommodate records management.

b. Standardize document formatting to:

(1) Facilitate overall document preparation.
(2) Provide a universal format for recording and tracking document changes and revisions.
(3) Provide uniformity and consistency in content, structure and presentation.
(4) Ensure inclusion of essential management elements.
(5) Support requirements and objectives of the Quality Management Program.
(6) Ensure continuity of SSC operations by precluding undue revisions to essential documentation necessitated by reorganizations or contractor changes.

c. Standardize practices and processes consistent with the functionality and capability of the TechDoc System to:

(1) Ensure document and content review prior to system entry.
(2) Properly categorize and associate document by type of information or instruction to be purveyed.
(3) Minimize or preclude system entry errors by ensuring agreement of document content with system entry information.
(4) Facilitate information identification, search, and retrieval.
(5) Facilitate document management and maintenance (review and revision).

1.3 Scope

This document provides the standards and guidelines for preparation and management of SSC policy, procedural, and work instruction documents. Chapters 2, 3, and 4 respectively of this document provide the standards, instruction, and practical guidance for:

- Format of SPD’s, SPG’s, work instructions, and the writing and composition thereof.
- Documentation numbering methodology and the Stennis Document Numbering System application.
- Capability, functionality, access, and use of the TechDoc System.

This guidance has been prepared to be consistent with applicable elements of NPG 1400.1, NASA Directives System Procedures and Guidelines; SPG 8730.1, John C. Stennis Space Center Customer Service Manual; SLP-05, Document and Data Control; and SLP-16, SSC Records Management Program and Control of Quality Records. The standards and guidelines presented here should be coordinated with and used in conjunction with these documents. This document may supersede portions of some document preparation and management procedures developed under previous guidelines.

1.4 Definitions

Definitions and acronyms are provided in the Appendix to this document.

1.5 Roles and Responsibilities

1.5.1 Center Operations and Support Directorate

The SSC Center Operations and Support Directorate is delegated the overall responsibility for management and direction to plan, design, construct, operate, and maintain the facilities required for the rocket propulsion systems testing mission as well as technical and institutional facilities to support programs of NASA and other SSC organizations. This includes development and management of an effective Information Technology (IT) program that encompasses management of information resources. The Center Operations and Support Directorate is specifically responsible for:

a. Providing technical and support services necessary for the accomplishment of missions for NASA and other organizations at SSC.

b. Developing and managing the Center's overall IT capability and strategic planning in support of NASA including administrative and scientific information systems.

c. Representing the Center Director on issues related to information technology policy development and implementation.

d. Planning and administering a comprehensive program for the operation of SSC data systems and the acquisition, utilization, maintenance, and security of information technology.

e. Planning, developing, managing, operating, and maintaining information system platforms which includes implementation, operation, and maintenance of the SSC Technical Documentation System.

On behalf of the SSC, the Center Operations and Support Directorate is the Office of Primary Responsibility (OPR) responsible for leading development and maintenance of this document.

1.5.2 SSC Chief Information Officer (CIO)

The SSC CIO is the designated Center representative for information technology policy development and implementation. The CIO is responsible for representing SSC in supporting NASA goals and objectives in the accomplishment of its mission programs through the efficient and cost-effective utilization of IT. The SSC CIO coordinates with the NASA CIO for establishing IT policies and promoting standards and a secure architecture to support scientific, engineering, and administrative data requirements.

CIO responsibility encompasses not only the IT resource systems, but the management processes for data and information management inclusive of facilitating the dissemination and effective use of the knowledge and information contained within the SSC IT resources.

The CIO is responsible for ensuring that the objectives of this SPG support the objectives of the SSC Quality Management Program and coordinating its implementation activities with the Center Management Representative for Quality (MRQ) and SSC Quality Management Council (QMC) as needed.

1.5.3 SSC Directives and Records Manager

The SSC Directives and Records Manager is responsible for overall management of the SSC Directives System and SSC Records and ensuring compliance with NASA directives requirements for these activities. The Directives and Records Manager is responsible for:

a. Coordinating the approval process, issuance, and management of SSC Directives and coordinating the assignment of Directives numbers.

b. Providing oversight direction for development and implementation of the standard document numbering methodology.

c. Coordinating the issuance and use of Agency File Scheme (AFS) subject numbers for the standard document numbering methodology, the SDNS, and associated activities for records identification, disposition, and indexing in the SSC Master Records Index (MRI).

1.5.4 Offices of Primary Responsibility – Document Managers and Owners

a. Organizations and offices responsible for the preparation, issuance and maintenance of SSC documentation are responsible for maintaining their instructional documentation in accordance with this document.

b. Organizations are responsible for implementing the necessary processes within their areas for the timely maintenance, review, revision and cancellation of documents in accordance with these guidelines and applicable quality management instructions and to ensure that personnel operate in strict compliance with these and all other applicable standards, regulations, specifications and procedures.

c. OPRs are responsible for the prompt modification or cancellation of documents when they are no longer correct or applicable and for the notification to other organizations that have a need to know when documents have been modified or cancelled.

d. OPRs are responsible for assigning document "ownership" or management responsibilities for their documents and providing a "Point of Contact" (POC) for each document and its contents.

e. OPRs are responsible for the assignment and designation of TechDoc System document "Creators" who will be responsible for the creation and maintenance of the electronic files in the TechDoc System. Creators may or may not necessarily be the organization's responsible document owner/manager or POC but will be the person who sends the document to the TechDoc "Release Manager" for final review and release into the TechDoc system.

f. OPRs will appoint a TechDoc "Release Manager" who will be responsible for ensuring the general integrity and document quality and releasing documents into the TechDoc System in accordance with TechDoc System procedures. The Release Manager may or may not necessarily be the document owner/manager or responsible POC but will be responsible for coordinating and ensuring its proper release in the correct format and version.

g. OPRs are responsible for ensuring that personnel are properly trained in the use of the TechDoc system and that personnel assigned specific TechDoc System responsibilities (e.g., Creator, Release Manager, etc.) have properly established system accounts and training commensurate with their assigned system responsibilities.

h. Individuals assigned specific document management and maintenance responsibility, as document owners/managers or POCs are responsible for the content of their documents and adherence to the requirements of this SPG.

i. Document owners/managers are responsible for ensuring that an alternate designee has the necessary technical knowledge, access, and ability to make any necessary changes when the primary document owner/manager is unavailable. Document owners/managers will ensure that an appropriate “Access List” is associated with each document entered into the TechDoc System by the Creator or Release Manager.

j. Document managers/owners are responsible for ensuring the notification of other document OPRs who have vested information requirements when their documents have been modified or revised. Document owners/managers are responsible for maintaining and ensuring the association of a “Notification List" for each document entered into the TechDoc System for this purpose.

k. All OPRs and/or document managers/owners who have vested information requirements about documents owned or managed by other OPRs are responsible for notifying that OPR of their need for notification when documents have been changed or modified.

1.5.5 Document Creators

Document Creators are responsible for document initiation and modification processes. Responsibilities include:

a. Preparation and modification of documents in accordance with the formats, standards, and guidelines established herein.

b. Uploading of new and modified document files to the system and checking documents in and out of the TechDoc system for modification.

c. Creation and association of Access and Notification lists.

d. Identification and association of Keywords to facilitate search and retrieval of information.

e. Forwarding new or revised documents to the Release Manager for final review and release to the TechDoc system.

1.5.6 Document Release Managers

Release Managers have overall responsibility for ensuring the quality of documents and for final release of documents for publication in the TechDoc System. Release Managers are responsible for:

a. Conduct of final release reviews of documents and ensuring that any necessary corrections are made before release for publication in the TechDoc System.

b. Release of documents to the TechDoc System for formal publication.

c. Associating Access and Notification lists and Keywords with documents (if not done by Creator) at their release and publication in the TechDoc System.

1.5.7 SSC Employees

a. All employees are responsible for the quality of their work and for understanding and complying with the requirements contained in each SPG, SPD, SLP or work instruction document.

b. Employees are responsible for following their organizational requirements for making, reporting, or requesting changes and modifications to documentation.

c. Employees are responsible for ensuring that the work instructions they are using are the latest and correct version and for prompt reporting of errors and necessary corrections.

1.5.8 Support Contractor Organization

The designated Test and Technical Support Contractor (TTSC) organization is responsible for the administration, maintenance and operation of the IT technical systems and applications supporting documentation management. The contractor organization is responsible for:

a. Administering and operating the TechDoc System including issuance of TechDoc accounts, document administration and maintenance within the system, system entry oversight and ensuring correction of errors, development of user guides and provision of user training and support.

b. Administration and operation of the Stennis Document Numbering System including user support.

c. Assisting the Center Operations and Support Directorate and the CIO in the development of necessary information and documentation to support SSC IT and documentation management efforts.

CHAPTER 2. DOCUMENT PREPARATION AND MANAGEMENT

2.1 Official NASA Document Hierarchy

All documents which influence the implementation and performance of SSC initiatives and work objectives fall within a documentation hierarchy that defines the document’s influence and describes its type, purpose, general content, and issuance requirements.

All SSC documentation must be categorized by Type for assignment of document numbers and entry into the SSC TechDoc system. The instructions for standard numbering provide additional definition for the types of documents and categorization for TechDoc publication.

Table 2-1 – NASA Document Hierarchy

Level	Description/Definition
1. NASA Policy Directives (NPD)	NPD's document NASA policy and identify responsibilities, authorities, and principal policy relationships. NPD's describe *WHAT* is required by NASA management for achieving NASA’s vision and mission as depicted in the NASA Strategic Plan (per NPG 1400.1, NASA Directives System). NPD's replaced NASA Management Instructions (NMI). NPD's bear an expiration date of 5 years from the effective date and must be revalidated, revised, or cancelled at that time. NPD's are published in the NASA Online Directives Information System (NODIS) and are not entered in the SSC TechDoc System. NPD's are considered External Documents for SSC ISO reference purposes.
2. NASA Procedures and Guidelines (NPG)	NPG's provide specific detailed procedures and guidelines for implementing NASA policies. NPG's provide a basis for development of common approaches among NASA Centers or between Centers and Headquarters (per NPG 1400.1, NASA Directives System). NPG's replaced NASA Handbooks (NHB). NPG's bear an expiration date of 5 years from the effective date and must be revalidated, revised, or cancelled at that time. NPG's are published in NODIS and are not entered in the SSC TechDoc System. NPG's are considered External Documents for SSC ISO reference purposes.
3. NASA Level 3 Documents	Level 3 Documents in the NASA document Hierarchy are those that address Multiple Center Requirements (such as shuttle operations). These may be NPD's or NPG's.
4. Stennis Policy Directives (SPD)	SPD's document specific SSC Center policy and identify responsibilities, authorities, and principal policy relationships. SPD's describe *WHAT* is required by SSC management for achieving SSC’s vision and mission as depicted in the Strategic Plan. (Per the SSC Directives Architectural Format in the Index to Stennis Space Center Directives in NODIS). SPD's replaced Stennis Management Instructions (SMI). SPD's bear an expiration date of 5 years from the effective date and must be revalidated, revised, or cancelled at that time. SPD's are issued when there is no stated NASA policy or when NASA policy is insufficient for SSC's specific needs. SPD's are published in the TechDoc System and are linked to NODIS for NASA-wide reference. SPD's are considered to be Tier-2 reference documents for SSC International Organization for Standardization (ISO) purposes. SPD’s are signed and approved by the SSC Center Director and issued and released by the SSC Directives Manager. SPD’s are applicable to the Center as a whole across all organizational boundaries.
5(a). Stennis Procedures and Guidelines (SPG)	SPG's describe *WHO, WHAT, WHEN and HOW*. SPG's provide specific detailed Center procedures and guidelines for implementing NASA or SSC policies considered essential for accomplishing requirements established by SPD's or NPD's. (Per the SSC Directives Architectural Format in the Index to Stennis Space Center Directives in NODIS). SPG's may contain, define, or summarize a policy statement for clarification of purpose if needed. SPG's

Level	Description/Definition
	replaced Stennis Handbooks (SHB). SPG's bear an expiration date of 5 years from the effective date and must be revalidated, revised, or cancelled at that time. SPG's are issued when there is no stated NASA procedure or when NASA procedure is insufficient for SSC's specific needs. SPG's are published in the TechDoc System and are linked to NODIS for NASA-wide reference. SPG's are considered to be SSC ISO Tier-2 reference documents except for SPG 8730.1, SSC Customer Service Manual. SPG's are approved by the SSC Center Director and issued and released by the SSC Directives Manager. SPG's are applicable to the Center as a whole across all organizational boundaries.
5(b). SPG 8730.1, SSC Customer Service Manual	SPG 8730.1 is the specific SSC Tier-1 ISO document implementing the NASA/SSC ISO Quality Management System policy. SPG 8730.1 defines the *WHO and the WHAT* for implementing ISO at SSC and specifically establishes the SSC quality management system policy and objectives. The *How, When and Where* procedures for implementing ISO requirements are provided in SLP documents. In the SSC Quality Management System, SPG 8730.1 is superior to the companion SLP's, and SLP's are superior to quality system work instructions and procedures.
5(c). ISO System Level Procedures (SLP)	SLP's, companion documents to SPG 8730.1, describe the *How, When, and Where* procedures for implementing ISO requirements for each of the 19 ISO Quality System elements. SLP's carry the same weight as SPG's. SLP's are considered to be the SSC Tier-2 ISO documents. SLP's are published in the TechDoc System. Issuance and management of SLP's is reserved for the ISO Quality Management Program. The SSC Center Director as Chair of the Quality Management Council approves SLP's.
6. Work Instructions & Procedures.	Work instructions and procedures are the *How To* instructions for further implementing or achieving requirements of Federal regulations, NPD's, NPG's, SPD's, SPG's, and SLP's and/or accomplishing work goals, objectives, and deliverable products at Organizational, Departmental, Office, Unit, or individual levels. Work instructions, Common Work Instructions and procedures are generic terms describing the specific processes and procedures used to achieve stated objectives and requirements. They may be identified by a variety of terms used to categorize the instruction by defining the type of information to be purveyed (e.g., Management Procedures, SOP, Technical Procedure). Work instructions and procedures may be applicable across several organizations or to single individual areas. Work instructions and procedures are SSC Tier-3 ISO documents. These documents are prepared, issued, and released by the cognizant organizations (OPR). Various approvals may be required. Work Instructions are published in the TechDoc system.
7. Quality Records & Forms	Quality Records, Records, and Forms provide the objective evidence *(Results)* of the performance of work and achievement of requirements and deliverables. Quality Records and Forms are SSC Tier-4 ISO documents. Records are managed in accordance with NPG 1441.1, NASA Records Retention Schedules and are indexed in the SSC Master Records Index (MRI).

2.2 Standard Documentation Format

A standard documentation format will be applied to SPD's, SPG's, and work instructions and procedures. All SSC documents shall contain the following standard components:

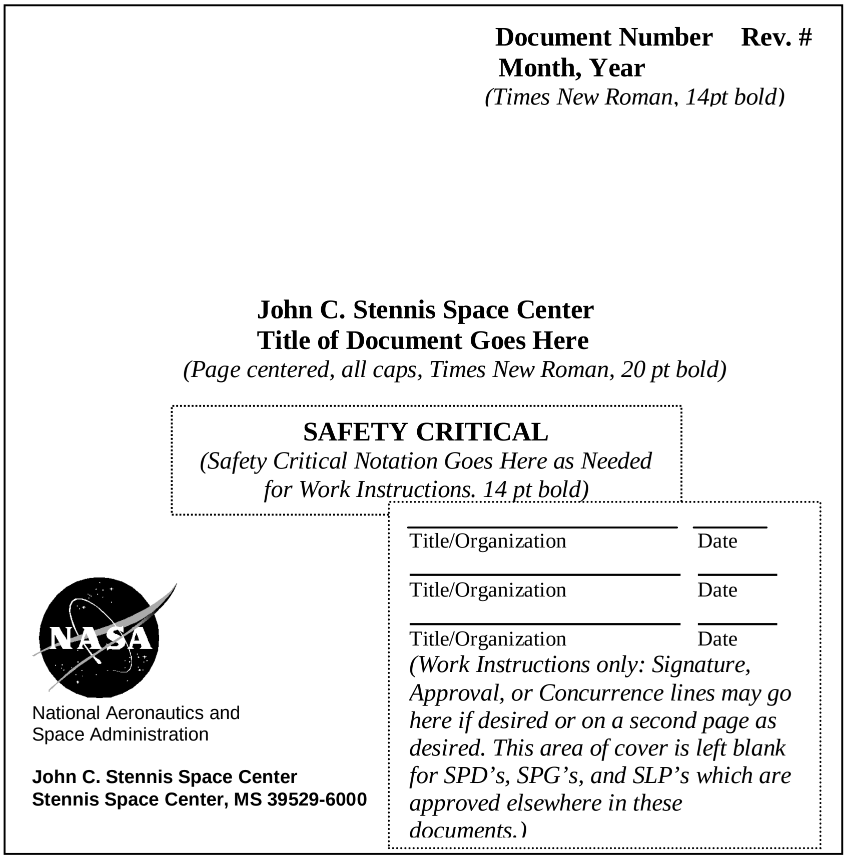
a. Cover.
b. Headers (two sizes).
c. Change Page (Document History Log).
d. Approval/Concurrence Signature (lines).
e. Standard body subject elements and styles specific to type of document.

The standard format has been developed for use with the standard SSC desktop word processing application. The following page setup is used:

- Top 1”
- Bottom 1”
- Left 1”
- Right 1”
- Gutter 0”
- Header 0.5”
- Footer 0.5”

2.2.1 Standard Cover

All documents will have a standard cover page containing the document number and revision level, issuance/effective date of the current revision in the upper right corner, document title centered on the page, and displaying the NASA logo at the bottom left. A standard cover is illustrated in Figure 2-1 and well as on the front of this SPG.



Document Number Rev. #
Month, Year
(Times New Roman, 14pt bold)

John C. Stennis Space Center
Title of Document Goes Here
(Page centered, all caps, Times New Roman, 20 pt bold)

SAFETY CRITICAL
(Safety Critical Notation Goes Here as Needed for Work Instructions. 14 pt bold)

Title/Organization Date

Title/Organization Date

Title/Organization Date

(Work Instructions only: Signature, Approval, or Concurrence lines may go here if desired or on a second page as desired. This area of cover is left blank for SPD’s, SPG’s, and SLP’s which are approved elsewhere in these documents.)

National Aeronautics and
Space Administration

John C. Stennis Space Center
Stennis Space Center, MS 39529-6000

Figure 2-1 – Standard Cover Page

Note the Revision Level showing on the cover as well as the header must be updated each time the document is revised. Also note that provision is made for placement of a “Safety Critical” notice on the cover. This notice is not required for all documents and will be placed on the cover as applicable to the requirements of a given process or procedure.

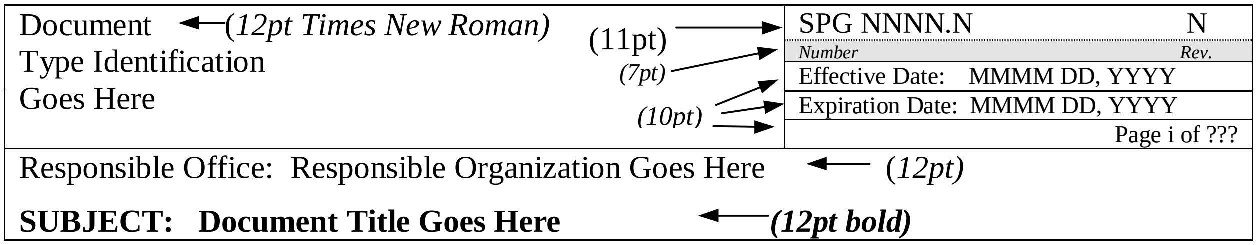
Insert a section break at the bottom of the cover page. Create a new empty “Section 1” header for insertion of the standard header on the following page. The header will be repeated on all subsequent pages until the section header is changed to a new one following another section break. Turn on the Show/Hide Paragraph button to see section and page breaks.

2.2.2 Standard Header/Footer

A standard header will appear on all pages except the cover page and any attachments from a secondary source. The standard header accommodates format requirements established for NASA Directives as well as provides a standard methodology for presenting the necessary information about SSC work instructions. Use of the header ensures that the user of the instruction has not only the correct instruction but also all of its pages.

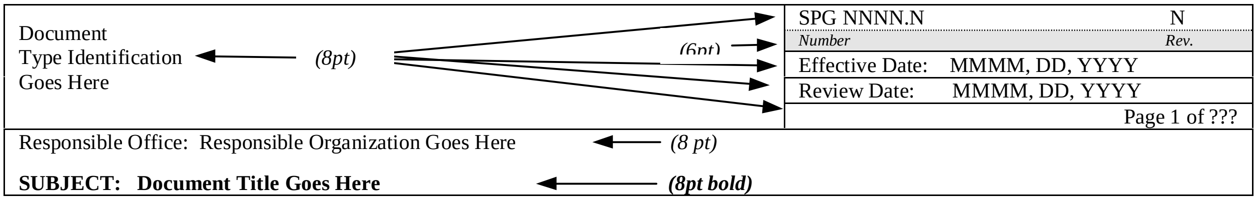
2.2.2.1 Header Structure, Format, and Size

Two sizes of headers are used. The larger header is utilized on all pages of SPD’s except the cover and all front matter material (Document History Log, Approvals, and, when used in a document, the Preface and Table of Contents pages). The smaller header in the same style and content and simply reduced in size, is used for the body of SPG and work instruction documents to allow more room for text on the page. The headers in the front matter and body of this document are examples and may be copied and used as templates when preparing new documents (word.doc). The header structure, which is a customized table, and its internal format are illustrated in Figures 2-2 and 2-3.



Document
Type Identification
Goes Here
(12pt Times New Roman)
(11pt)
(7pt)
(10pt)
SPG NNNN.N
N
Number
Rev.
Effective Date: MMMM DD, YYYY
Expiration Date: MMMM DD, YYYY
Page i of ???
Responsible Office: Responsible Organization Goes Here
(12pt)
SUBJECT: Document Title Goes Here
(12pt bold)

Figure 2-2 – Front Matter Header



Document
Type Identification
Goes Here
(8pt)
(6pt)
SPG NNNN.N
N
Number
Rev.
Effective Date: MMMM, DD, YYYY
Review Date: MMMM, DD, YYYY
Page 1 of ???
Responsible Office: Responsible Organization Goes Here
(8 pt)
SUBJECT: Document Title Goes Here
(8pt bold)

Figure 2-3 – Body Text Header

2.2.2.2 Header Content

All headers will contain six informational elements as described below.

1. Document Type Identification (e.g., Stennis Procedures and Guidelines, Standard Operating Procedure, Maintenance Instruction, Work Instruction, etc.). The document type will correlate to the document category/type definitions of the NASA Documentation Hierarchy (see Table 2-1), the definitions established by the SDNS methodology (see paragraph 3.4 and Table 3-1), and the SSC TechDoc System.

2. Document Number and Revision Level. The document number will be assigned in accordance with the standard numbering methodology and issued by the SDNS (see paragraph 3.4 and Table 3-1, and reference SPG 1400.2). The Revision level, discussed later in this document, will reflect the most current version of the document to be used. Revisions may be numbered: Basic, A, B, C or 0, 1, 2, 3, etc. Dates are not recommended because of their length and the greater potential for error and inconsistency in entry. The document number and revision level appearing on the document cover and header must match the document number and revision level entered in the TechDoc System upon its publication. The revision level indicated on the cover and in the header must be updated to match annotations in the Document History Log each time changes are made to a document. See paragraph 2.4 for additional instruction and guidance on revising documents and Chapter 3 for information on document numbering.

3. Effective Date and Expiration/Review Date. SPD's and SPG's will bear an effective date and expiration date in accordance with NPG 1400.1, NASA Directives System Procedures and Guidelines. The effective date will be the issuance date of the current version. The expiration date will be 5 years from the effective date. At a minimum, all SPD's and SPG's must be reviewed every 5 years and either renewed or cancelled at that time. Work Instruction or Procedural documents will bear the effective date of the current version and shall provide a Review date of 3 to 5 years hence. Instructions and procedures should be reviewed a minimum of every 3 to 5 years, if not revised more often, to ensure the continuing applicability and effectiveness of the instruction.

4. Page Number and Number of Pages. Documents will be numbered in a "Page # of #" format. The page number as well as the number of pages in the document should appear on every page to ensure that a user has all the document pages when working from a printed copy. Front matter (e.g., approvals, change history, Table of Contents, Preface) of documents will be numbered in lower case Roman numerals (e.g., i of iv) with the body text of the document numbered in Arabic numerals (e.g., 1 of 10). The cover is not considered a numbered page. Work Instruction or procedural documents with limited front matter (i.e., only approvals and a change history) may begin with Arabic page 1.

5. Responsible Office. The name of the Office or Organization responsible for the preparation, issue, and maintenance of a document will be entered. Except for SPD's and SPG's, use of organizational codes should be avoided. Only functional titles should be used to preclude the necessity for document revisions when organizational or contract changes occur.

6. Subject: Document Title. The document title will be entered in the Subject line as it appears on the front cover excluding the name John C. Stennis Space Center as part of the title. Document titles should be descriptive of their purpose and function, but do not have to necessarily contain the words "Procedures and Guidelines or Work Instruction." For example, the title of an SPG could be "Safety Manual" or a Technical Procedure could be "Acme Valve X500 Lubrication Process."

2.2.2.3 Footer

Footers are not formatted or used. The footer space is left available on the bottom of document pages for the placement of a standard "Release Statement" by the TechDoc System when the document is published. All policy, procedure, and work instruction documents entered into the SSC TechDoc System are considered "Controlled Documents." All documents will bear the statement "RELEASED – Printed documents may be obsolete; validate prior to use." This caution will be automatically issued and printed on all document pages to ensure that user's are working to the latest version of the document.

2.2.3 Change Page – Document History Log

All documents will contain a "change page" which will be used to record all changes and revisions to a document throughout its life. The change page will use a table format and will be labeled "Document History Log." The *Document History Log* will normally be the first page of the document following the cover. The *Document History Log* will contain the columns and informational elements shown below.

1. Status/Change/Revision: This column will reflect the document's version and revision (Rev.) level status from its creation throughout its life for every change or document revision performed. The revision level reflected in the header of the document must match exactly with the information in this column as well as the revision information entered in the TechDoc System. See paragraph 2.4 for additional instruction regarding document changes and revisions.

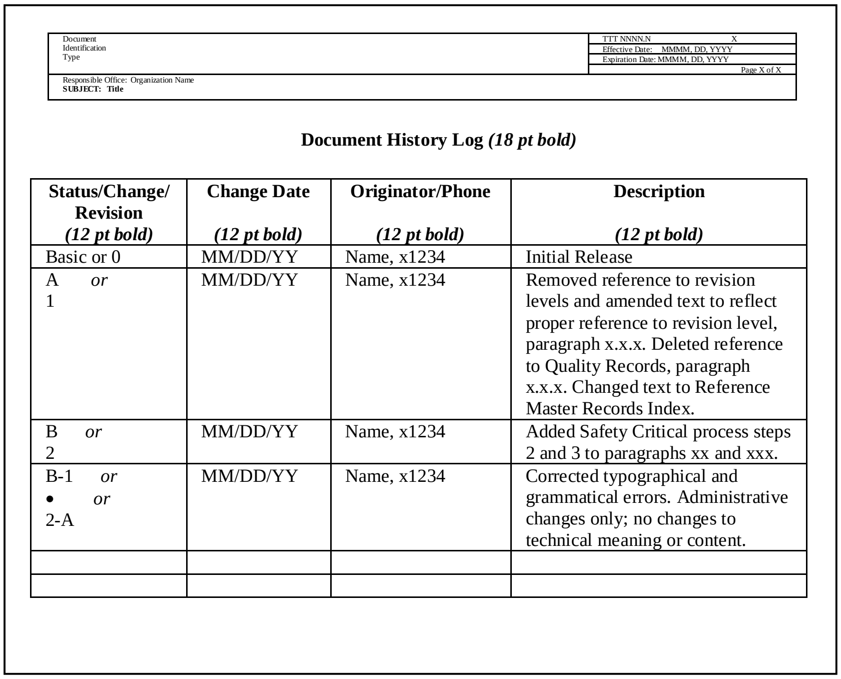
2. Change Date: This column will reflect the date of the change or revision being performed. This date should correlate to the Effective Date of the document.

3. Originator/Phone: The name and phone number of the person responsible (OPR) for issuance of the document and its changes will be entered. This person should be the knowledgeable Point of Contact (POC) for the document's technical content and history.

- Description: This column will contain descriptive information to identify any and all changes to a document. The descriptive information must be explicit and should provide sufficient detail and information to clearly, identify, trace, and track all document changes. Document managers should ensure that notations provide sufficient detail to satisfy the ISO Quality Management System requirements. Reference SLP- 05, Document and Data Control and/or consult with an SSC ISO Quality Champion or the SSC Management Representative for Quality (MRQ). Some examples of incorrect and correct notations are provided below for general reference.

  - NOT CORRECT: Changed References.
  - NOT CORRECT: Revised paragraph x.x.
  - CORRECT: Removed reference to revision levels and amended text to reflect proper reference to revision level, paragraph x.x.x. Deleted reference to Quality Records, paragraph x.x.x. Changed text to Reference Master Records Index.
  - CORRECT: Corrected typographical and grammatical errors throughout document. Performed administrative changes only; no changes to technical meaning or content.

The Document History Log appearing in the front of this SPG may be used as a template for preparation of new documents. Format and structure is illustrated in Figure 2-4. Additional rows may be added to the table by using the "Table, Insert Rows" option in the word.doc toolbar.



Document Identification Type	TTT NNNN.N X
	Effective Date: MMMM, DD, YYYY
	Expiration Date: MMMM, DD, YYYY
	Page X of X
Responsible Office: Organization Name **SUBJECT: Title**	

Document History Log *(18 pt bold)*

Status/Change/ Revision *(12 pt bold)*	**Change Date** *(12 pt bold)*	**Originator/Phone** *(12 pt bold)*	**Description** *(12 pt bold)*
Basic or 0	MM/DD/YY	Name, x1234	Initial Release
A *or* 1	MM/DD/YY	Name, x1234	Removed reference to revision levels and amended text to reflect proper reference to revision level, paragraph x.x.x. Deleted reference to Quality Records, paragraph x.x.x. Changed text to Reference Master Records Index.
B *or* 2	MM/DD/YY	Name, x1234	Added Safety Critical process steps 2 and 3 to paragraphs xx and xxx.
B-1 *or* • *or* 2-A	MM/DD/YY	Name, x1234	Corrected typographical and grammatical errors. Administrative changes only; no changes to technical meaning or content.

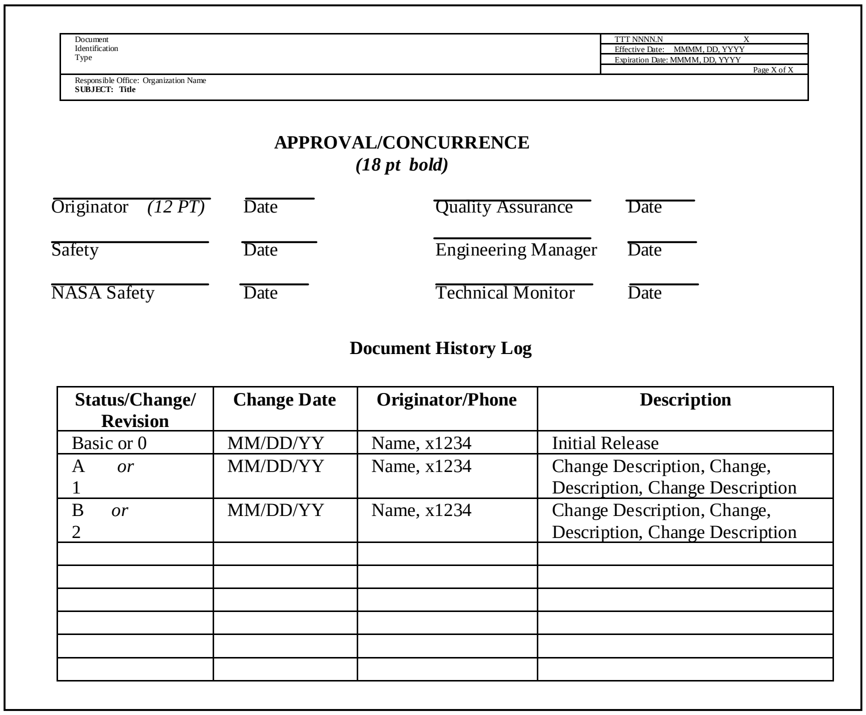
Figure 2-4 – Document History Log

2.2.4 Approvals and Concurrences

Approvals are required for all documents for records and management purposes. One or more approvals or concurrences may be required depending on the document and organizational requirements. For security reasons, only original hard copy documents should bear actual signatures. These documents must be retained in the files of the Office of Primary Responsibility. The electronic document files entered in the SSC TechDoc System should bear notations such as “Original Approved By,” “Signed By,” or “Signature on File.” Scanned signatures may not be included in the actual electronic file as this presents a security risk.

For SPG’s and SPD’s, the approving signature will be located as a Center Director’s signature block following the CANCELLATION subject element. Reference NPG 1400.1 for instruction on the basic format for Directives.

SSC Work Instruction or Procedure documents may require one or more approvals or concurrences. The approval and concurrence lines for these documents may be located in several different places depending upon requirements or user need. The location option will be at the discretion of the document manager. Approval lines may be placed on the front cover as illustrated in Figure 2-1, may be inserted as a separate page immediately following the cover, or may be inserted above and on the same page as the Document History Log as in the example shown in Figure 2-5 below. Changes and revisions (including redlines) to documents must be approved by the appropriate officials each time they occur.



Document
Identification
Type

TTT NNNN.N X
Effective Date: MMMM, DD, YYYY
Expiration Date: MMMM, DD, YYYY
Page X of X

Responsible Office: Organization Name
SUBJECT: Title

APPROVAL/CONCURRENCE
(18 pt bold)

Originator *(12 PT)* Date Quality Assurance Date

Safety Date Engineering Manager Date

NASA Safety Date Technical Monitor Date

Document History Log

Status/Change/ Revision	Change Date	Originator/Phone	Description
Basic or 0	MM/DD/YY	Name, x1234	Initial Release
A *or* 1	MM/DD/YY	Name, x1234	Change Description, Change, Description, Change Description
B *or* 2	MM/DD/YY	Name, x1234	Change Description, Change, Description, Change Description

Figure 2-5 – Approvals/Concurrences

2.3 Standard Document Formats and Styles

The document standards for required components, format, paragraph elements, and styles will vary depending upon the type of document. Stennis Policy Directives and Stennis Procedures and Guidelines (SPD's and SPG's) will be prepared in accordance with the basic instruction for format and style provided in NPG 1400.1, NASA Directives System Procedures and Guidelines and the additional guidance in the following paragraphs. Issuance of SPD's and SPG's must be coordinated through the SSC Directives Manager. Specific instruction for preparation of Stennis Work Instructions and procedural documents is provided below.

2.3.1 Stennis Policy Directives

SPD's will include the standard SSC *Cover*, *Document History Log*, and *Header(s)* and the prescribed paragraph subject elements and numbering listed below. SPD's should be typically limited to less than six pages. The SSC Directives Manager will coordinate any special requirements for deviation from this page limitation and standard format. The body of the document will immediately follow the *Document History Log*. The header will be continued from the previous page. Numbered elements will be 12-pt bold type. Text will be 12-pt type. The recommended font is Times New Roman.

a. **1. POLICY –** Statements of policy should be unique to Stennis and not a repetition of NASA policy.

b. **2. APPLICABILITY –** Statements of applicability should be specific to personnel, functions, organizations, and requirements at SSC.

c. **3. AUTHORITY –** List 42 U.S.C 2473(c)(1), Section 203(c)(1), of the National Aeronautics and Space Act of 1958, as amended, or other laws, executive orders, statutory citations, or external references that authorize the directive or mandate the need for the SPD. For public laws, or executive orders, cite the number and date; titles are optional. Associated internal or external NASA documents are cited under paragraph 4. References.

d. **4. REFERENCES –** List any NASA, Stennis, or other external documents relied upon, that influence, or are closely associated with the SPD. Cite the number, date, and title. Do not show the revision or version number unless only that specific version of a document is to be referenced. Include URL links if available and appropriate.

e. **5. RESPONSIBILITY –** Identify the Stennis officials in charge of the Center, Directorates or their designees who are delegated the authority to implement and manage the SPD. Officials in charge of SSC Directorates are responsible for overall management of the policy and for identifying those who are empowered to accomplish the policy and identifying those who are accountable for enforcing the policy.

f. **6. MEASUREMENTS** – If applicable this paragraph must include specific metrics that address outputs, outcomes, impacts, and/or levels of customer satisfaction appropriate to the subject of the specific SPD. Good metrics will respond positively to the following criteria: a] Validity- does it with reasonable fidelity, measure results due to SSC action? b] Selectivity – Will it accurately discriminate between poor, good, and extraordinary performance? c] Applicability – Can measurements be reasonably substantiated and supported by available data?

g. **7. CANCELLATION** – List documents to be cancelled if applicable; otherwise state NONE.

h. Signature Block – Center Director.

i. Attachment – List attachments if applicable.

j. DISTRIBUTION – List NODIS and Stennis distribution code.

2.3.2 Stennis Procedures and Guidelines

Format of SPG's will include but is not limited to the standard SSC *Cover*, *Document History Log*, and *Header* and the prescribed components, elements and paragraphs listed below. This document follows the SPG format. Numbered elements will be 12-pt bold type. Text will be 12-pt type. The recommended font is Times New Roman.

a. **Table of Contents** – The *Table of Contents* (TOC; 12-pt bold, centered) will immediately follow the *Document History Log* and will continue the same header. The TOC will utilize a standard style structure available in word processing applications.

b. **PREFACE** – The Preface (12-pt bold, all-caps, left justified) will immediately follow the TOC and continue the same header. The Preface will contain the following standard paragraphs and numbering structure. Paragraph titles will be 12-pt bold, all caps. All titles and text will be left justified.

(1) **P.1 PURPOSE** – The purpose should describe the aim and objective of the document and what the instruction does and does not cover.

(2) **P.2 APPLICABILITY** – Applicability should describe whom and what the instruction specifically applies to and who must follow it.

(3) **P.3 AUTHORITY** – Same instruction as SPD.

(4) **P.4 REFERENCES** – Same instruction as SPD.

(5) **P.5 CANCELLATION –** Same instruction as SPD.

(6) Signature Block – Center Director.

(7) DISTRIBUTION – List NODIS and Stennis distribution code.

c. Chapters – The body text of SPG's is provided in Chapters. Insert a section break at the end of the Preface and create a new small header to begin the body of the document. As many chapters as needed to describe the processes or procedures may be included in the document. All chapters begin on a new page. Chapters should be separated by page or section breaks. The smaller header will continue throughout the document. Chapters will follow the format and outline numbering standard in Figure 2-6 below.

CHAPTER 1. TITLE (12-pt bold, all caps, solid paragraph border)

1.1 Title *(12-pt bold), Text 12-pt*
1.2
1.3
1.3.1
1.3.2
1.3.2.1
1.3.2.2 *(will not exceed 4-digit level)*

Figure 2-6 – SPG Chapter Format

d. Appendices – Appendices may be included if needed or appropriate. Appendices will be labeled A, B, C, etc. with titles and will be listed in the Table of Contents.

2.3.3 Stennis Work Instructions and Procedures

SSC work instruction and procedural documents will include at a minimum the standard *Cover, Header(s), Document History Log, Approvals,* and enumerated section/body text. Attachments may be included if prepared by SSC and not from an external or secondary source (with some unique exceptions). External or secondary source materials should be included as *References* when the reference source is valid and the material is readily available and may be accessed. A *Table of Contents* may also be included if warranted from the complexity of the document. If needed, the TOC would follow on the next page after the *Document History Log* and precede the body text of the document. The recommended style is 12-pt bold type for numbered elements with text 12-pt type. The recommended font is Times New Roman.

Standard paragraph subject and text elements will include but are not limited to the following:

a. **1.0 Purpose** – Required Element: Describes the aim and objective of document what and whom the instruction does and does not cover. Objective and Scope may be included as part of this section title as appropriate or may be separate paragraph subject elements.

b. **2.0 Applicability** – Required Element: Describes who and what the instruction specifically applies to and who must follow it.

c. **3.0 References** – Required Element: This element must reference all documents (other instructions, policies, and procedures, Directives, external references) and any regulatory requirements that influence or mandate the creation or performance of the activities being documented. As appropriate reference other documents influenced by this procedure. The following standard phrase should be included as text of this section: "All references are assumed to be the latest version unless otherwise indicated."

The "version number" should not be included in referenced documents unless only that version of a document must be used for reference.

Note: As appropriate, references should also be "called out" in the text of the document where pertinent to the performance of a specific task of the instruction.

d. **4.0 Responsibilities or Roles and Responsibilities** – This element is not absolutely required but is highly recommended. The element should describe who (by job function) has responsibilities for specific tasks or actions.

e. **5.0 Procedure(s)** [or appropriate section title] – Required Element: This may be one or more sections as necessary to describe the process, procedure, instruction, etc. This section or sections should be a complete description of tasks to be carried out, by whom, and in what sequence.

f. **X.0 Records and Forms** – Required Element: This element should reference/list any specific documentation needed to perform the procedure, the records or forms that will be or must be maintained in the performance of the activity, or that are directly relevant to its performance. If there is an "Official" ISO Quality record associated with the activity, it should be noted as such. The following standard phrase should be used in the text of this section: "All records and forms are assumed to be the latest version unless otherwise indicated. Quality Records are identified in the SSC Master Records Index."

g. **X.0 Acronyms, Abbreviations, and Definitions** – Use as needed: Define all acronyms and abbreviations and provide definitions for the unique terminology of the document. Acronyms and abbreviations should be defined on their first occurrence in the text as well as in a listing. Listings of Acronyms and Definitions may be provided as an Appendix or Attachment to the document as warranted.

h. **X.0 Flowchart** – Not absolutely required; however, Flowcharts can be extremely useful. In some cases, use of a flowchart can be substituted for a substantial amount of text. For example, if a flow chart fully describes a process or instruction, under paragraph 5.0 you could simply say that processes are performed in accordance with the flow chart in paragraph X.0. Also, a checklist can be used to also satisfy descriptive requirements within the text.

2.4 Document Management – Changes, Revisions, Reviews and Cancellations

The initial release of a document is identified as the "*Basic*" version. The initial release may be annotated in the "*Revision*" level number of the document with the word Basic or the numeral 0. Version numbers are incrementally raised upon each document revision (e.g., A, B, C or 1, 2, 3). Dates will not be used to denote the revision level or version of a document. Modifications to a document will be defined as either technical or administrative changes. Any and all modifications to a document must be reflected in the *Document History Log*. The current revision level must be reflected on the document cover and page headers.

2.4.1 Technical Changes

Any technical change to a document will automatically be considered a *Revision* and the version level will be raised to the highest next increment. Technical changes include but are not necessarily limited to any change that affects:

a. Form, fit, or function.
b. Safety or Quality Assurance.
c. Technical content or meaning.
d. Required references (e.g., new references, changes in number or title).
e. Essential forms.

2.4.2 Administrative Changes

Modifications to a document that do not change the meaning or technical content (usually corrections for spelling, typographical errors, punctuation, or grammar) will be considered Administrative changes. Any modification that affects meaning will not be considered an administrative change. Caution should be exercised in making corrections as to whether the meaning has changed either literally or contextually.

The correction of a spelling or typographical error may have administrative or technical impact depending upon the correction. For example, in the sentence "Turn the switch of." the word *of* is obviously incorrect but the indicated meaning may be assumed generally clear from the spelling and context. Correcting the spelling to "*off*" might be an administrative change. However if the word should have been "*on*" then the change would be technical in nature as it does affect the technical performance. Similarly, changing the value 7.0 for a setting or specification to any other value (e.g., 7.1) is not strictly a typographical correction but is obviously a Technical change.

Administrative changes to a document allow smaller incremental changes in the version level of a document without being considered a revision. A modification to a document that affects less than 50 percent of its total content or pages and does not affect the technical content or meaning may be considered an administrative change. Administrative changes performed subsequent to issuance of a major revision may be annotated as A-1, A-2 or 1-1, 1-2, etc. in the *Document History Log*. The *Document History Log* must adequately describe the changes made. The use of Change Bars in the body of the text to indicate where changes have been made is recommended. Up to five (5) Administrative changes to a document may be issued before the changes will be considered a revision and the revision level must be raised to the highest next increment. The need for numerous administrative changes is usually indicative that initial pre-release and issuance reviews have been inadequate to ensure the quality and content of the document. A thorough and complete editorial and content review should be conducted prior to releasing any document for publication in the TechDoc System.

2.4.3 Revisions

Any modification to a document that affects more than 50 percent of its total content or number of pages and/or affects its technical content or meaning is considered a revision. The revision level of the document will move up to the highest next increment. A revision will be made automatically upon the sixth Administrative change to a document regardless of whether the aggregate of the previous interim changes affects the majority of the document.

Organizations should follow the established review and approval processes and procedures for their organization.

2.4.4 Reviews and Cancellations

The OPR and/or the document manager is responsible for periodic reviews of those documents within their purview to ensure continuing applicability and validity of content. SPD's and SPG's must be reviewed at a minimum once every 5 years. Work instruction documents should be reviewed a minimum of once every 3 to 5 years. Reviews and revisions may occur more often as necessary corrections or changes are identified. Corrections and changes should be made to documents as they are identified. Changed or revised documents must be reissued and republished in the TechDoc System to ensure that all users have access to and are using the latest and correct version of an instruction.

Offices and organizations are responsible for establishing the necessary document and data control processes and procedures in accordance with SLP-05 to ensure timely document review, revision, and information accuracy. Development and use of a review/release checklist is recommended. An optional checklist (SSC Form 738, TechDoc System Documentation System Release Checklist) is provided on the SSC Intranet under the SSC Forms listing.

Documents must be officially cancelled and removed from access when the instruction is no longer valid. Notices of cancellation *(Cancel Page)* will be placed in the TechDoc System. The *Cancel Page* will actually replace the old document in the system. See paragraphs 2.5 and 4.5 for additional information regarding cancellations and issuance of cancel pages.

2.4.5 Notifications of Changes or Revisions

Cross-referencing of documents or instructions is a major concern for SSC personnel in the document management process and performance of necessary activities. Document managers are responsible for notifying key users and all affected organizations when documents have been modified, revised, or cancelled. Key notification/standardized distribution lists should be developed and associated with documents to ensure this notification process. Conversely, organizations that cross reference critical documents as well as key document users are responsible for ensuring that document owners/managers are alerted to their need for inclusion on notification lists. Reference the TechDoc System for information on automated notification functions. SPD's and SPG's will use the established standard distribution list (SDL) for SSC Directives.

2.5 Converting and Canceling Legacy Documents

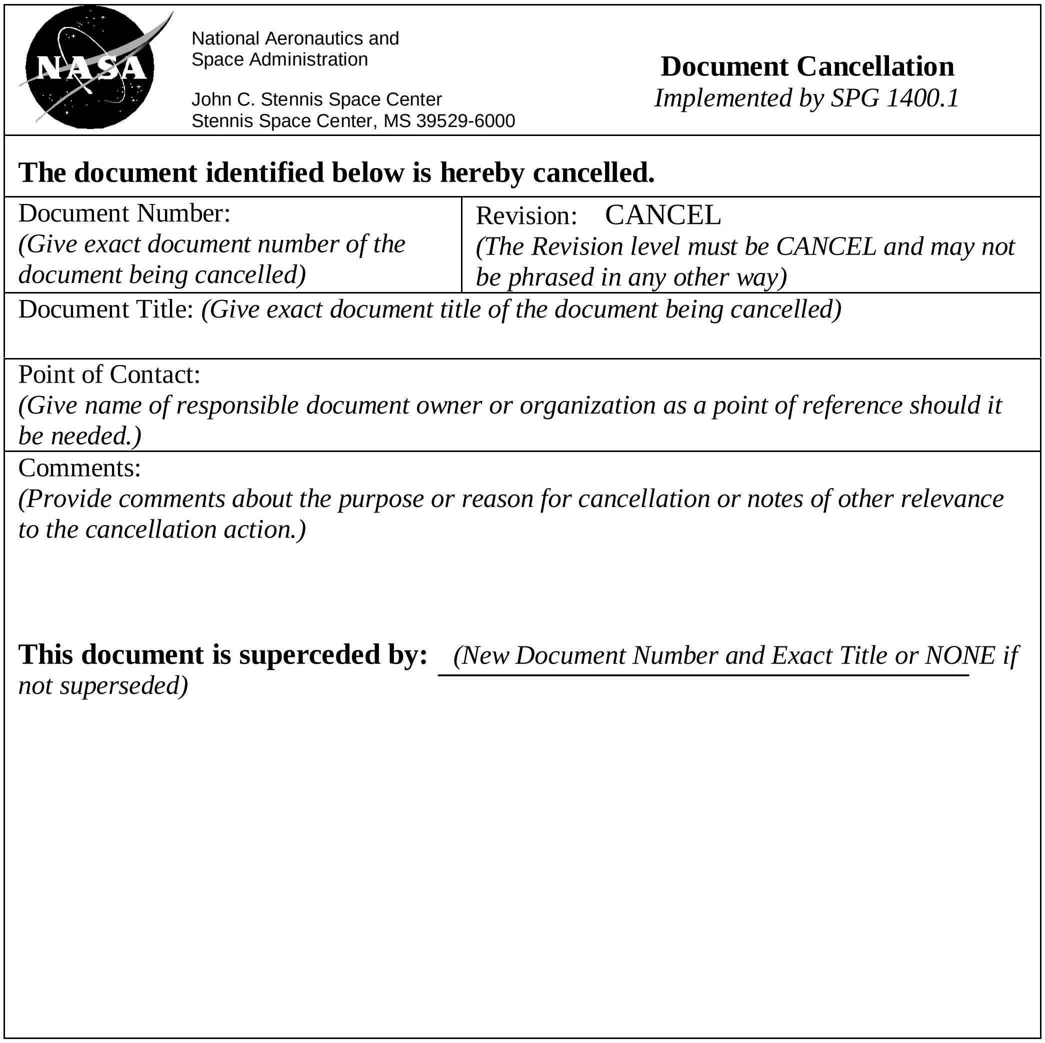
The SSC document format and numbering methodology described herein shall be used on all legacy documents as they are revised or converted from scanned images to electronic format. Legacy documents are considered to be those documents that predate the establishment and use of the documentation format and numbering standards described herein and which have been previously entered into the SSC TechDoc System in either electronic or scanned format.

As legacy documents are revised they will be converted to the new format and numbering methodology and reentered in the TechDoc System. Coinciding with their reentry and publication with the new format and numbering, “Cancel” pages will be prepared and uploaded into TechDoc as “revised” documents to replace the old document. See paragraph 4.5 for additional information on document history and cancellation.

Cancel pages will contain the information illustrated in the example form in Figure 2-7. Users should reference Forms on the SSC Intranet or consult with the TechDoc System administrators for access to cancellation page forms. If this form is not available, users may develop their own cancellation pages (word.doc format) as long as they contain the title “Document Cancellation” and all of the information shown in the example.

The *Cancel Page* must explicitly provide the information for the new SDNS document number and title which is to replace the old document. This information is essential to direct personnel to the new and correct document to be used. If a document is simply being cancelled and not replaced, this information area will be left blank. *CANCEL* must be shown as the revision level for a document being cancelled. No other phrase or word may be used. The word *CANCEL* must also be exactly entered in the TechDoc System when the cancel page replaces the old document.

Responsible organizations and document managers should map out a transition strategy for the revision and conversion of old documents to the new format and numbering system to ensure that cross-referencing issues are addressed and that key users are notified. To preserve sequential numbering and order of documents, preassignment and reservation of blocks of numbers in the automated SDNS is recommended. If this option is desired, the SDNS administrators will provide assistance.



National Aeronautics and
Space Administration

John C. Stennis Space Center
Stennis Space Center, MS 39529-6000

Document Cancellation
Implemented by SPG 1400.1

The document identified below is hereby cancelled.

Document Number: *(Give exact document number of the document being cancelled)*	Revision: CANCEL *(The Revision level must be CANCEL and may not be phrased in any other way)*

Document Title: *(Give exact document title of the document being cancelled)*

Point of Contact:
(Give name of responsible document owner or organization as a point of reference should it be needed.)

Comments:
(Provide comments about the purpose or reason for cancellation or notes of other relevance to the cancellation action.)

This document is superceded by: *(New Document Number and Exact Title or NONE if not superseded)*

Figure 2-7 – Document Cancellation Page

2.6 General Conventions and Requirements

2.6.1 Safety Critical Notices

Documents containing “Safety Critical” operations or processes will be prominently marked. *Safety Critical* notices will be placed on the front cover of all such documents and will be prominently displayed within the body of the documents as required.

Document owners are responsible for ensuring that Safety Critical aspects are addressed in accordance with SPG 8715.1, Stennis Space Center Safety and Health Procedures and Guidelines and other applicable safety instructions.

2.6.2 Scanning

Use of electronic files whenever possible allows for easier revisions in the future and provides capability for search and retrieval of information. Scanning of documents into the TechDoc System should be avoided if at all possible. Textual searches of documents are not possible with scanned images. Scanning is acceptable for drawings, sketches, etc. Scanning is permissible on external documents or older documents where absolutely no electronic file is available. Consult with the TechDoc System administrators for assistance and options when considering use of scanned documents and images.

All scanned legacy documents should be converted to electronic documents upon redline or revision.

2.6.3 Use of Logos, Contractor Names, and Organizational Codes

Official NASA logos will be used in accordance with NASA Headquarters policies and guidelines. Contractor logos and names will not be used on SSC documents and procedures prepared for and specifically applicable to performance of SSC functions, operations, and services. These process and procedural documents are considered to be NASA property and will remain effective regardless of the performing organization. Contractor logos may be used on contractor proprietary documentation only.

To help preclude document revision issues, use of specific contractor names or organizational codes when referencing organizations performing work activities is not recommended. Reference to contract titles (e.g., TTSC or FOSC) or generic functions (e.g., Test Engineering, Facility Services, etc.) is recommended. Reorganizations and changes in contractors may occur regularly but functions remain relatively constant.

2.6.4 Document Sensitivity and Security

Some SSC documentation that may be published in the TechDoc System may be considered sensitive for security, proprietary, technology export, or other reasons. Appropriate statements of the document's sensitivity should be footnoted or watermarked on all pages of such documents.

Care must be exercised in the handling and posting of sensitive documents in TechDoc for reference access and update. A security feature that limits access to a selected list of TechDoc system users who are authorized access is provided by the TechDoc System to accommodate documents with sensitivity and security issues.

Document owners should follow all applicable guidelines in setting up a document to preclude general SSC or public access to information deemed sensitive. Contact the TechDoc administrators for training and assistance in activating and using the TechDoc security features.

2.6.5 General Style Convention

The U.S. GPO Style Manual shall be the general guide for capitalization, punctuation, compound word forms, and numerals. The general guide for spelling shall be the U.S. GPO Style Manual or any widely accepted dictionary of the English language, such as Webster's and American Heritage.

Other useful and recommended guidance in the preparation of documentation can be found in:

- NASA SP-7084, *Grammar, Punctuation, and Capitalization, A Handbook for Technical Writers and Editors*.
- NPG 1450.1; *NASA Correspondence Management and Communications Standards and Style*.

2.6.6 External Documents

External documents are typically **not** generated at SSC. Examples are industry specifications, Material Safety Data Sheets (MSDS), customer documents, NPD's, NPG's, and other government agency regulations. Some external documents may be entered in the TechDoc System. These documents will utilize their existing numbering as appropriate or may be issued an SSC document number from the SDNS under an appropriate document *Type* category.

2.7 Writing and Composition

Technical procedures often pertain to complex components and convey specific step-by-step procedures for unique or unusual tasks. All document text should conform to generally accepted standards of good English, and shall follow the practices outlined herein and applicable governmental standards.

The following basic writing tips and practices are provided to aid in composing and preparing SSC documents.

a. The Paperwork Reduction Act expressly states do not write instructions if the information, instruction, or material is sufficiently described in other documents or instructions to perform what is required. In preparing documentation don't simply repeat what's been described elsewhere – those instructions or information may be cross-referenced when the source is valid and the information is readily accessible.

b. Documents do not necessarily have to be lengthy to be effective. Keep it short and simple. Don't "over document."

c. Flowchart a process, if appropriate. Make extensive use of charts and tables.

d. Use and follow a standardized format.

e. Keep the audience in mind.
- Make the meaning very clear; have someone else read it and explain back what was said.
- Check grammar – make text grammatically correct.
- Check spelling and punctuation.
- Avoid jargon.
- Separate ideas into individual sentences or paragraphs, or sections.
- Don't go too deep with the numbering level (1.1.1.1.1) – keep it to three to four levels maximum. If it's worth breaking out at a deep level then perhaps restructuring at a higher level is warranted.

f. Remember outlining rules - when there's a "1", there should be a "2"; an "a", there should be a "b."

g. Write to the task, not an individual. Documents are written to help workers perform their tasks more efficiently and consistently. For every task, identify:
- Who is responsible for making sure it gets done.
- Standards to be met/completion criteria.
- What resources are needed to accomplish the task or requirement.
- What records must be kept.
- What to do if it doesn't work.

h. Pretest procedures. Try them and get feedback.

i. Prepare and use a document review process and checklist.

CHAPTER 3. STANDARD NUMBERING METHODOLGY AND SYSTEM

3.1 Standard Numbering Requirement and Purpose

A standardized numbering methodology will be used for all documents that originate and are distributed within SSC. The purpose of the standard methodology is to provide uniformity and consistency in numbering sitewide documentation for NASA/SSC and its contractor organizations to facilitate documentation management, referenceability, and retrieveability and to aid records management. The numbering scheme aligns with the methodology used for NASA Directives and the Agency File Scheme (AFS) subject codes to provide a common structure for all organizations.

3.2 Applicability

The documentation numbering methodology is applicable to and for use on all SSC Directives (SPD's & SPG's), procedures, process, and work instruction type documents entered into the TechDoc System documentation repository. The numbering scheme and document entry into the TechDoc System may also be used for documents such as major plans, reports, and other informational documents with reference and retrieval value to the SSC mission and operations.

The methodology is specifically to be used for those documents directly describing the policy, actions, and work activities necessary to accomplish SSC requirements and objectives. The numbering system does not apply to Contractor corporate/proprietary management instructions (e.g., Vacation, Tuition, Time Cards, etc.) or to NASA/SSC scientific and technical information (STI) publications. If Contractors desire to publish their management instructions in the TechDoc System, their own numbering methodology should be used. SSC personnel preparing STI publications should use the Publication Numbering Series (PNS) application for assignment of document numbers.

3.3 Standard Document Numbering System (SDNS)

The SDNS is an automated web-based application that assigns and tracks numbers for SSC documentation. The SDNS will be used to issue all SSC documentation numbers.

Document authors should access the SDNS for assignment of a document number during the preparation process. Document numbers must be assigned prior to publication of a document in the TechDoc System. By supplying a document type, AFS Number, title, and requestor of the document, the SDNS application will generate the publication number to be assigned to the document. SDNS also allows the user to request a report from the database for a list of documents contained in the database by category. Options to ***Request Document Number***, generate ***Document Report***, or perform ***Administration*** are provided on the main SDNS window. Clicking an option will take a User to the appropriate window for performance. The *Administration* option is reserved for use of database administrators only.

Abbreviated help information and instructions on using the SDNS to issue document numbers is available by selecting the ***HELP*** button at the bottom of the SDNS ***REQUEST DOCUMENT NUMBER*** window. A link back to the complete SDNS User Guidelines for additional information is also provided. The complete SDNS User Guidelines are published as SPG 1400.2 in NODIS and the SSC TechDoc System.

3.4 Number Structure

The standardized numbering methodology considers and incorporates:

- Center Identification and methodology for identifying documents by type of instruction or information (e.g., Directive, SLP, Work Instruction, Plan, etc.).
- Agency File Scheme/Records numbering requirements (AFS).
- Existing numbering methodology for NASA Directives.
- Consecutive number assignment within each type.
- Other unique identifier requirements.

The number is composed of five required fields in a four-field format separated by hyphens:

Field 1 & 2		Field 3		Field 4		Field 5
Center & Type	-	*AFS #*	-	*Sequential No.*	-	*Unique ID*

Examples:

- SPG-2810.1 (Document # 1 in this series. Only directives will be numbered in this manner).
- SWI-3630-0001 (Stennis Work Instruction – AFS 3630 [Absence & Leave] – No. 1 in series).
- SMP-8710-0001 (Stennis Management Procedure – AFS 8710 [Safety] – No. 1 in series).
- SPLN-8730-0001 (Stennis Plan – AFS 8730 [Quality] – No. 1 in series).
- SOI-8080-0001 (Stennis Organizational Instruction - AFS 8080 [Tests & Testing]- No. 1 in series).
- STS-8076-0001-HIW (Stennis Technical Standard 8076 [Fluids, Propulsion] – No. 1 in series – High Pressure Industrial Water).
- SSOP-8730-0001-GMA (Stennis Standard Operating Procedure – AFS 8730 [Quality] – No. 1 in series – Gas & Materials Analysis).

In addition to Directives and SSC procedures, the numbering methodology allows users to use the TechDoc system to store for ready retrieval many additional types of information resources of benefit and use across the facility (i.e., unique plans and reports, mission and capability statements, etc.) For example: Stennis Space Center Test Facilities Capability Handbook.

The document would be numbered similar to the following: SREF-8080-0001 (Stennis Reference – AFS 8080 [Tests & Testing] – No. 1 in series).

3.4.1 Fields 1 & 2 – Center Identification and Document Type

Fields 1 and 2 are combined and uniquely identify the Center (Field 1) and the type or category of instruction provided by the document (Field 2). The first field *Center* will always be an “S” denoting Stennis Space Center. SDNS automatically assigns the “S” notation. No user input is required.

The second field *Type* is a two or three character abbreviation determined by standard type definitions that categorize and identify the document by the type of information or instruction provided.

The SDNS provides a pull-down menu for selection of the appropriate document *Type*. Users should choose the *Type* that best describes the information provided by or the function of their document. Document *Type* is one of the search and retrieval query capabilities of the TechDoc System. Accurate and consistent *Type* categorization of documents is essential to maintaining SDNS and TechDoc system data and providing accurate and complete search and retrieval results to user queries. Document *Type* definitions and accepted abbreviations are listed in Table 3-1.

Note: Additional types and abbreviations may be added to fulfill future expansion requirements. New TechDoc *Type* Categories may be added by contacting the TechDoc Document Administrator.

Table 3-1 – SSC Document Types and Definitions

DOCUMENT TYPE DEFINITIONS		
Type Category	**Accepted Abbreviation**	***Description/Definition***
DIR	PG, PD	Directives: Defined as Stennis Policy Directive (SPD) and Stennis Procedures and Guidelines (SPG). Category reserved for NASA/SSC Directives only.
DCR	DCR, DR	Discrepancy & Correction Records: Not currently being entered. Reserved for future use.
ED	ED	Engineering Drawings: Not currently being entered. Reserved for future use.
FORM	FRM	Documents used for recording or processing information and or data collection.
MI	MI	Maintenance Instruction: Provide routine inspection, maintenance, test and/or rework instructions, processes, or procedures for recurring or cyclic activities specific

DOCUMENT TYPE DEFINITIONS		
Type Category	**Accepted Abbreviation**	***Description/Definition***
		hardware components and systems.
MP	MP	Management Procedure: Provides administrative and or general operational instructions or procedures for a corporate entity (NASA or Contractor), department, or section
OI	OI	Organization Instruction: Provides procedures and instructions for internal use within an organization. Contains administrative “WHAT To” and operational “HOW To.” Specific to Propulsion Test Directorate (PTD) operational activities.
PLAN	PLN	Plan: Specifies what will be done, when and by whom. May or may not include detailed ‘how’ work will be performed. Types of Plans may include contract deliverables as well as area plans; i.e., security, safety, and quality.
PP	PP, TPS	Process Plans: Unique documents defining a process for a given specific activity, one-time occurrence.
QP	QP	Quality Procedure: Provides procedures and instructions specific to quality assurance, e.g. products, documents, records, plans, etc.
REFERENCE	REF	Reference: Various types of reference documentation (Reference Manuals, Specifications, etc.)
REPORT	RPT	Report: Usually a text document providing an explanation of a technical or business situation.
SCD	SCD	Specification Control Drawing: Provides specifications of a particular part or item for procurements.
SLP	SLP	ISO System Level Procedure – describes the *Who, What, When, and Where* procedures for implementing ISO requirements for each of the 20 ISO Quality System elements. SLP's are companion documents to SPG 8730.1 and carry the same weight as SPG's. SLP's are considered to be SSC Tier-2 ISO documents. Use of SLP’s is reserved for the ISO program.
SOP	SOP	Standard Operating Procedure: Provides instruction for regularly performed routine tasks by trained and/or certified personnel on a system or equipment.
SP	SP	Safety Procedure: Provides procedures and requirements specific to safety, e.g. task performance, equipment, process requirements, OSHA, etc.

DOCUMENT TYPE DEFINITIONS		
Type Category	**Accepted Abbreviation**	***Description/Definition***
TS	TS, STD	Technical Standard: Provides authoritative instruction that has been tested and proven to certify the quality of the end result, for given processes, products, designs, procedures, etc., unique to SSC.
TPI	TPI, TP	Technical Procedures & Instructions: Provide procedures relating to a technical or scientific process or methodology used by trained and/or certified technical or laboratory personnel. Typically performed in a bench or laboratory environment.
WI	WI, CWI	Work Instruction: Delineates detailed activities for accomplishing a specific task or a set of closely related tasks needed to ensure consistent working methods and quality of output.

3.4.2 Field 3 – Agency Filing Scheme (AFS) Number

The SDNS utilizes the AFS as part of the SSC document numbering methodology to facilitate records management. The AFS is an established set of NASA number codes utilized for categorizing management information and records by subject areas. NASA Directives are numbered according to the AFS code to which the Directive subject matter pertains. Records are filed and managed in accordance with the AFS and associated Records Disposition Schedules.

All SSC documentation should fall into one of the established subject codes of the AFS. SDNS users must select an AFS code as part of the number for their document. Use of the AFS number in most cases will be sufficient to tie a procedure to a functional requirement or area.

The SDNS provides a direct link to the AFS for reference and determination of the appropriate AFS code. SDNS users should consult with their organizational Records Custodian for assistance in identifying the appropriate AFS code for their document if they are unfamiliar with the AFS. If an appropriate AFS code is not identifiable or is unavailable from the existing AFS listing, contact the NASA/SSC Records Manager to determine and/or add a code to the system. For further reference, the AFS is contained in Appendix A of NPG 1441.1; Records Retention Schedules located in the NASA Online Directives Information System (NODIS). Access to NODIS is provided on the SSC Intranet or users may go directly to: http://www.sti.nasa.gov/nasarrs.

If an invalid AFS number is entered in the SDNS, the SDNS provides an error message to enter a different number. If a desired AFS number is not in the SDNS, the SDNS provides a message to contact the NASA/SSC Records Manager for assistance.

3.4.3 Field 4 – Sequential Number

The fourth field is a four digit (except for SPD's and SPG's) *Sequential Number* issued by the SDNS database. Each document within a particular *Type* category and *AFS* subject area will be issued numbers in sequence beginning with 0001 and going up with each new document added to that particular *Type* and *AFS*. No User input is required for this field.

Note: SPD's and SPG's are handled uniquely according to the established methods for numbering NASA/SSC Directives (e.g., 2810.1; 2540.2; etc.). All other documents will utilize the four-digit format sequential number.

3.4.4 Field 5 – Unique Area Identifier

The fifth field is an optional User entry field and is not absolutely required. The optional field for *Unique Area Identifier* is used for areas such as the Propulsion Test Directorate and other areas that require procedures to be individually distinguishable. For example, the Propulsion Test Directorate may have dozens of Standard Operating Procedures (*Type* - SOP) all falling within the same AFS subject area but pertaining to different areas of activity. The unique identifier allows further distinguishing of Test Engineering Operations, High Pressure Industrial Water procedures from those of Test Engineering Operations, High Pressure Gas and other groups for instance. The *Unique Area Identifier* is limited to seven characters. Examples:

- SSOP-8830-0001-TEOHIW.
- SSOP-8830-0002-TEOMS.
- SSOP-8830-0003-TEOHPG.

Unique Area Identifiers are reserved and pre-established in the system for use. If use of a *Unique Area Identifier* is desired and it has not already been established, Users should contact the SDNS Administrators for assistance in establishing and reserving the desired identifier code.

3.5 About Revision Numbers

The SDNS does not issue or track document Version or Revision numbers. SDNS issues the basic document number only. Issuance, maintenance, and tracking of Revision numbers are the responsibility of the document owner as a part of the TechDoc System entry and document revision process.

CHAPTER 4. TECHNICAL DOCUMENTATION SYSTEM (TECHDOC)

4.1 Documentation Control System and Repository

The TechDoc System (TDS) is the designated repository for SSC documentation and is the official tool for document and data control. As such, it will be used for the publication issuance, management, and revision control of all SSC instructional documentation. The system may also be used for housing information resources of other types such as plans, reports, reference documents, data sheets, etc. which are of lasting or important value to conduct SSC activities and support its information needs. Complete information on the wide-ranging capabilities and functions of the system and user training is available through the SSC TechDoc System Administrators.

4.2 Functionality

The TechDoc System is a distributed document management system with a design that allows for the management of any type document (file). The TechDoc System features include:

a. Upload and download of documents for creation, modification, review and approval.
b. Revision control of approved documents.
c. Automated notification/distribution of new or revised documents to critical document users.
d. Distribution/publication of released documents to the SSC/user community via common access interface.
e. Full text search and retrieval of published documents.
f. Direct linking to the TechDoc System and/or its individual documents from other user developed World Wide Web pages.
g. Structured organization of information by types, categories, functions, organizations, etc.
h. Security functions to limit document access to authorized users when needed.

The system accepts documents created in various electronic formats and creates a PDF file acceptable for viewing with standard web browsers. Documents may be retrieved, viewed, and printed in either the native or PDF format but they cannot be altered in the viewing mode. Upon publication in the system, a watermark is created with the standard release statement: “RELEASED – Printed documents may be obsolete; validate prior to use.” This caution is issued on all document pages to ensure that user’s are working to the latest version of the document.

SSC documents should be created and submitted in electronic format from software available on NASA/SSC standard desktops. The current acceptable electronic file formats are shown in Table 4-1. Use and acceptance of other software and file formats will be considered on a case by case basis.

Table 4-1 – TechDoc Acceptable Electronic File Formats

Word Processing text	Microsoft Word
Spread Sheets	Microsoft Excel
Presentation Slides	Microsoft Power Point
Imbedded Images	PDF, GIF, BMP, TIF, or JPEG file

Document and information search capability includes but is not necessarily limited to:

- Title.
- Document Number.
- Document Type (e.g., Directive, SOP, Work Instruction, Maintenance Instruction, etc.).
- Keywords.

A list of current approved document types and their definitions is provided in Table 3-1. A document *Type* category descriptive of the document's purpose or use must be selected when entering a document into the system. Accurate and consistent *Type* categorization of documents is essential to maintaining SDNS and TechDoc system data and providing accurate and complete search and retrieval results to user queries. Additional document types may be added by contacting the SSC TechDoc System administrators. The need for addition of document types will be considered on a case by case basis.

4.3 TechDoc Access

The TechDoc System is available to all SSC personnel for document search, retrieval and viewing via standard browser from the SSC Intranet. TechDoc documents may also be accessed from the ISO web page. The TechDoc web page provides options and pull-down menus for user queries. Access to documents by responsible organization and function is provided on the ISO web page.

To create and manage documents in the system, users must have an account, user ID and password, receive user training, and install the TechDoc software* on their personal computer. Software may not be installed until a user account is established. User accounts will be established via the TechDoc User Account Request form through the SSC TechDoc System Administrators. User training will be scheduled at the time the User Account and ID is established.

*Note: The current version of the TechDoc System requires installation of TechDoc application software. This will not be a requirement with the implementation of a new version of the TechDoc System (version 2.0) planned for FY 2001.

When requesting an account, requestors must specify the type of account required: Document Creator or Release Manager. The Document Creator places new or revised documents into

TechDoc; the Release Manager is responsible for the final review and official release of the document into the system for use. The Document Creator and the Release Manager may be one and the same but are frequently performed as separate functions and responsibilities. For the purposes of TechDoc the Document Creator is considered to be the author and owner (although they may not be in actuality) while the Release Manager is considered to be the Document Manager (although not necessarily the document's technical Point of Contact).

The Release Manager is responsible for ensuring the correct population of information in the TechDoc system and for ensuring the association of Access and Notification lists and Keywords as needed. Release Managers are urged to utilize a final review process and checklist when releasing a document to the system. An optional form (SSC-738, TechDoc System Documentation Release Checklist) is available on the SSC Intranet for this purpose. Document Creators and Release Managers are cautioned that all information entered in the TechDoc System must match exactly with that contained in the document. Typographical errors, misspellings, and inconsistent entries will render search and retrieval efforts ineffective.

4.4 Document Creation and Modification Process

The document creation and/or modification process is illustrated in Figure 4-1. Complete instruction for using the TechDoc System is available in the TechDoc System User's Guide which may be obtained from the TechDoc System administrators and is available online via browser in the TechDoc System.

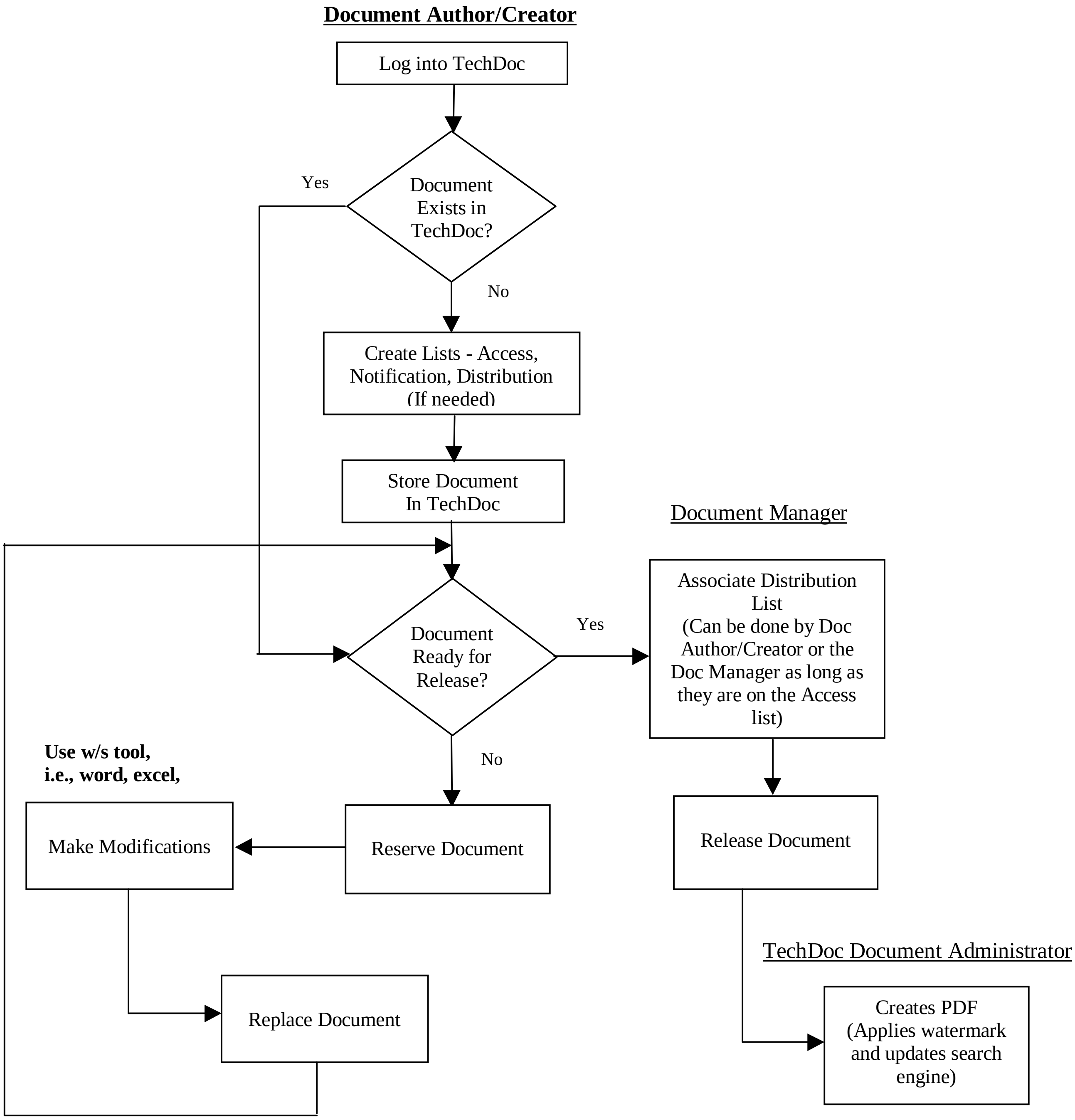
4.5 Document History and Cancellations

The TechDoc System retains a complete history of all document transactions. The history reflects the status of on-going document changes during the modification process (generations) as well as all Revisions including the most current version. This feature is important not only to tracking status in the modification and review process but to the document's overall and complete history for audit and investigation purposes. Prior versions of a document may be retrieved should the need arise.

Cancellation *(CANCEL)* is treated as a revision level for purposes of maintaining the document history. Cancellation pages are actually revised documents that replace the existing version of the document being cancelled. Paragraph 2.5 contains information for preparation of cancellation pages.

On occasion, the processes or procedures contained in a cancelled document may need to be reinstated. The TechDoc *Cancel* process and history allows the retrieval and reinstatement of the older document along with its established document number.

Documents may be deleted from the system only through an administrative process. However, deletions permanently remove any and all history of the document. Any requirements for deletion of documents must be carefully considered and justified.



Document Author/Creator
Log into TechDoc
Document Exists in TechDoc?
Yes
No
Create Lists - Access, Notification, Distribution (If needed)
Store Document In TechDoc
Document Manager
Document Ready for Release?
Yes
No
Associate Distribution List (Can be done by Doc Author/Creator or the Doc Manager as long as they are on the Access list)
Use w/s tool, i.e., word, excel,
Make Modifications
Reserve Document
Release Document
TechDoc Document Administrator
Replace Document
Creates PDF (Applies watermark and updates search engine)

Figure 4-1 – Document Creation/Modification Flow Process

Appendix A – Acronyms and Definitions

A.1 Acronyms

AFS	Agency File Scheme
CIO	Chief Information Officer
CSM	Customer Service Manual
CWI	Common Work Instruction
DCR, DR	Discrepancy & Correction Records
DIR	Directives
ED	Engineering Drawings
FRM	Form
FOSC	Facility Operating Services Contractor
GPO	Government Printing Office
ISO	International Organization for Standardization
IT	Information Technology
MI	Maintenance Instruction
MP	Management Procedure
MRI	Master Records Index
MRQ	Management Representative for Quality
MSDS	Material Safety Data Sheet
NASA	National Aeronautics and Space Administration
NODIS	NASA Online Directives Information System
NHB	NASA Handbook
NMI	NASA Management Instruction
NPD	NASA Policy Directive
NPG	NASA Procedures and Guidelines
OI	Organizational Instruction
OPR	Office of Primary Responsibility
PLN	Plan
PNS	Publication Numbering Series (for STI documents)

POC	Point of Contact
PP	Process Plans
PTD	Propulsion Test Directorate
QA	Quality Assurance
QMC	SSC Quality Management Council
QP	Quality Procedures
SCD	Specification Control Drawings
SDL	Standard Distribution List
SDNS	Stennis Document Numbering System
SHB	Stennis Handbook
SLP	System Level Procedure
SMI	Stennis Management Instruction
SOP	Standard Operating Procedure
SP	Safety Procedure
SPD	Stennis Policy Directive
SPG	Stennis Procedures and Guidelines
SSC	Stennis Space Center
STD	Standard
STI	Scientific and Technical Information
TechDoc	KSC Technical Documentation System – To become SSC Technical Documentation System
TOC	Table of Contents
TP	Technical Procedure
TPI	Technical Procedures and Instructions
TPS	Test Preparation Sheet (Process Plan)
TS	Technical Standard
TTSC	Test and Technical Services Contractor
WI	Work Instruction

A.2 Definitions

Administrative Change: A corrective change to a document that does not affect technical content or meaning and does not affect more than 50 percent of the document's content or total page count.

Agency File Scheme (AFS): Official NASA methodology for numbering and categorizing records according to subject matter. Used in conjunction with the NASA Records Retention Schedules.

Cancellation Page (CANCEL): A revised document placed in the TechDoc System to cancel the currently active document.

Change Page: A required page in all SSC procedural or instructional documents for maintaining the history of all changes and modifications to a document. Called Document History Log.

Creator (Document): Person assigned by the OPR as having responsibility for preparing and uploading documents into the TechDoc System. May be the same person as the Release Manager and may or may not be the person responsible for actual document ownership and management.

Documentation Custodian: Person assigned responsibility within a Stennis organization for identification, maintenance and disposition of records in accordance with the Agency File Scheme record subject categories and the NASA Records Retention Scheduled. Updates and maintains the listing of records in the Master Records Index.

Document History Log: A required part of all SSC procedural and instructional documents for maintaining a complete history of all changes and modifications to a document. All administrative and technical changes to a document must be annotated.

Document Manager: Person assigned by the OPR as having overall responsibility for the management and maintenance of a document. For the TechDoc System the Document Manager is considered to be the same as the Release Manager and Owner. The Document Manager may or may not be the same person as the Creator or actual Owner. See also Creator, Owner, and Release Manager.

ISO: Borrowed from the Greek word, *isos*, meaning, "equal." It refers to the International Organization for Standardization, which was founded in 1946 to develop a common set of manufacturing, trade, and communication standards. Although this organization is commonly referred to as ISO, *ISO* technically is not an acronym for anything.

Management Representative for Quality (MRQ): A person who is responsible for ensuring the effective establishment and operation of the Customer Service Manual (CSM), and who reports directly to the Quality Management Council Committee.

Master List: Listing of work instructions, forms, etc. used to perform tasks. It contains the document's number and revision level.

NASA Records Retention Schedules (NRRS): Official NASA descriptions of types of files and records and listing of retention and disposition requirements. (NPG 1441.1)

Office of Primary Responsibility (OPR): The organization having the primary responsibility for a process or procedure for the delivery of a product or service to the customer and, therefore, responsible for identifying which records need to be generated and placed under control and where they shall be maintained and stored.

Owner (Document): The person assigned by the OPR as having responsibility for management of a document. In the TechDoc System the Owner is the same as the Release Manager or Document Manager. For practical document management purposes the Owner may be considered the *Point of Contact* who is knowledgeable of and manages the document's technical content and performance.

Quality: The totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs.

Quality Management: All activities of the overall management function that determine the quality policy, objectives, and responsibilities, and that implement them by means such as quality planning, quality control, quality assurance, and quality improvement.

Quality Management Council (QMC): This management team renders decisions, assigns actions, and tracks those actions to closure. Membership includes Deputy Director (Chair), Director Safety and Mission Assurance, Director Procurement and Business Management, Director Human Resources & Management Services, Director Center Operations and Support, Director Propulsion Test Division, Director Commercial Remote Sensing Program Office, General Manager FOSC, and General Manager TTSC.

Quality Plan: A document setting forth the specific quality practices, resources, and sequence of activities relevant to a particular product, project, or contract.

Quality Policy: The overall intention and direction of an organization with regard to quality as formally expressed by top management.

Quality Record: A document or data item that furnishes objective evidence of activities performed or results achieved. A quality record substantiates the fulfillment of quality requirements or the effectiveness of a CSM element's operation. Some of the purposes of quality records are demonstration, traceability, and preventive and corrective action. A quality record can be written or stored on any data medium.

Quality System: The organizational structure, procedures, processes, and resources needed to implement quality management.

Release Manager: Person designated by an OPR as responsible for the final review, entry of document information, and release of documents into the TechDoc System. For the TechDoc System, the Release Manager is considered to be the Document Manager and Owner. May be the same as Document Creator and may or may not be the actual document owner or manager.

Requirement: A documented need.

Revision: Any change or modification to a document requiring update of the document to the highest next Revision level number.

Technical Change: Any corrective change or modification to a document that affects technical content. Technical changes are automatic revisions to the next revision level.

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